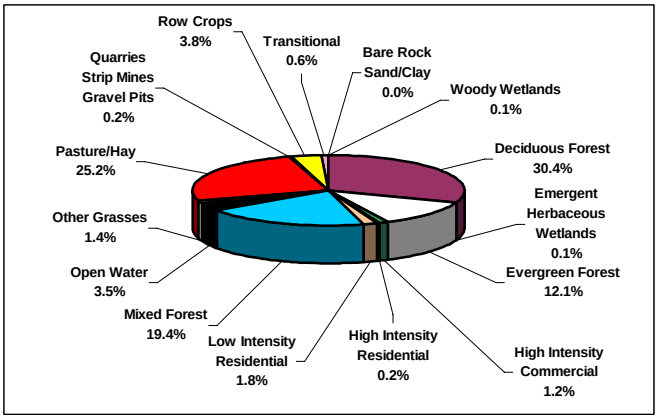
Summary – Holston River Watershed

In 1996, the Tennessee Department of Environment and Conservation Division of Water Pollution Control adopted a watershed approach to water quality. This approach is based on the idea that many water quality problems, like the accumulation of point and nonpoint pollutants, are best addressed at the watershed level. Focusing on the whole watershed helps reach the best balance among efforts to control point sources of pollution and polluted runoff as well as protect drinking water sources and sensitive natural resources such as wetlands. Tennessee has chosen to use the USGS 8-digit Hydrologic Unit Code (HUC-8) as the organizing unit.

The Watershed Approach recognizes awareness that restoring and maintaining our waters requires crossing traditional barriers (point *vs.* nonpoint sources of pollution) when designing solutions. These solutions increasingly rely on participation by both public and private sectors, where citizens, elected officials, and technical personnel all have opportunities to participate. The Watershed Approach provides the framework for a watershed-based and community-based approach to address water quality problems.

Chapter 1 of the Holston River Watershed Water Quality Management Plan discusses the Watershed Approach and emphasizes that the Watershed Approach is not a regulatory program or an EPA mandate; rather it is a decision-making process that reflects a common strategy for information collection and analysis as well as a common understanding of the roles, priorities, and responsibilities of all stakeholders within a watershed. Traditional activities like permitting, planning and monitoring are also coordinated in the Watershed Approach.

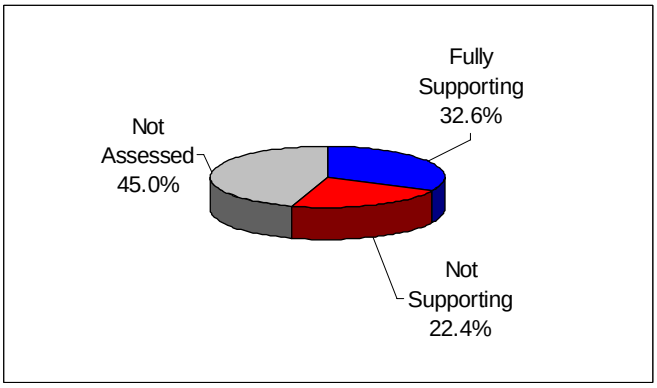
A detailed description of the watershed can be found in Chapter 2. The Holston River Watershed is approximately 999 square miles and includes parts of nine Tennessee counties. A part of the Tennessee River drainage basin, the watershed has 1,175.6 stream miles and 6,499 lake acres.



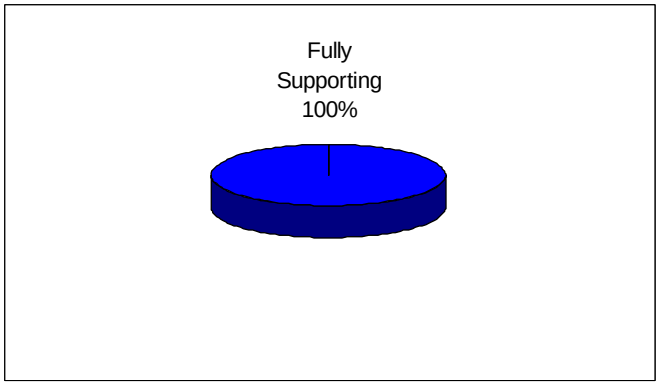
Land Use Distribution in the Holston River Watershed.

Two designated state natural areas, two state parks, and three wildlife management areas are located in the watershed. Fifty-six rare plant and animal species have been documented in the watershed, including eight rare fish species, eleven rare mussel species, and one rare snail species. A portion of one stream in the Holston River Watershed is listed in the National Rivers Inventory as having one or more outstanding natural or cultural values.

A review of water quality sampling and assessment is presented in Chapter 3. Using the Watershed Approach to Water Quality, 504 sampling events occurred in the Holston River Watershed in 2000-2005. These were conducted at ambient, ecoregion or watershed monitoring sites. Monitoring results support the conclusion that 62.7% of stream miles and 100% of lake acres assessed fully support one or more designated uses.



Water Quality Assessment of Streams and Rivers in the Holston River Watershed. Assessment data are based on the 2004 Water Quality Assessment of 1,175.6 stream miles in the watershed.



Water Quality Assessment of Lakes in the Holston River Watershed. Assessment data are based on the 2004 Water Quality Assessment of 6,499 lake acres in the watershed.

Also in Chapter 3, a series of maps illustrate overall use support in the watershed, as well as use support for the individual uses of Fish and Aquatic Life Support, Recreation, Irrigation, and Livestock Watering and Wildlife. Another series of maps illustrate streams that are listed for impairment by specific causes (pollutants) such as pathogens, habitat alteration, and nutrient enrichment, and siltation.

Point and Nonpoint Sources are addressed in Chapter 4. Chapter 4 is organized by HUC-12 subwatersheds. Maps illustrating the locations of STORET monitoring sites and stream gauging stations are also presented in each subwatershed.

HUC-10	HUC-12
0601010401	060101040101 (Holston River)
	060101040102 (Holston River)
	060101040103 (Big Creek)
	060101040104 (Beech Creek)
0601010402	060101040201 (Cherokee Lake)
	060101040202 (Robertson Creek)
	060101040203 (Cherokee Lake)
	060101040204 (Caney Creek)
	060101040205 (Poor Valley Creek)
	060101040206 (Cherokee Lake)
	060101040207 (Turkey Creek)
	060101040208 (German Creek)
	060101040209 (Cherokee Lake)
	060101040210 (Cherokee Lake)
0601010403	060101040301 (Holston River)
	060101040302 (Holston River)
	060101040303 (Richland Creek)
	060101040304 (Holston River)
	060101040305 (Flat Creek)
	060101040306 (Roseberry Creek)

The Holston River Watershed is Composed of twenty USGS-Delineated Subwatersheds (12-Digit Subwatersheds).

Point source contributions to the Holston River Watershed consist of twenty-four individual NPDES-permitted facilities, twelve of which discharge into streams that have been listed on the 2004 303(d) list. Other point source permits in the watershed are Tennessee Multi-Sector Permits (69), Mining Permits (18), Aquatic Resource Alteration Permits (12), Ready Mix Concrete Plant Permits (7), Water Treatment Plant Permits (7), and Concentrated Animal Feeding Operations (2). Agricultural operations include cattle, chicken, hog, and sheep farming. Maps illustrating the locations of permit sites and tables summarizing livestock practices are presented in each subwatershed.

Chapter 5 is entitled *Water Quality Partnerships in the Holston River Watershed* and highlights partnerships between agencies and between agencies and landowners that are essential to success. Programs of federal agencies (Natural Resources Conservation Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Army Corps of Engineers, and Tennessee Valley Authority), and state agencies (TDEC/State Revolving Fund, TDEC Division of Water Supply and Tennessee Department of Agriculture) are summarized. Local initiatives of organizations active in the watershed (Caney Creek Watershed Partnership, Holston River Watershed Alliance, Smoky Mountain RC&D Council, and The Nature Conservancy) are also described.

Point and Nonpoint source approaches to water quality problems in the Holston River Watershed are addressed in Chapter 6. Chapter 6 also includes comments received during public meetings, links to EPA-approved TMDLs in the watershed, and an assessment of needs for the watershed.

The full Holston River Watershed Water Quality Management Plan can be found at: http://www.state.tn.us/environment/wpc/watershed/wsmplans/